Process For Updating Equipment Publications/Standardization Documents

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Discussion Topics

➢ Compliance Scheme for Cleaning in the DLSME NESHAP

➢ Equipment Publication Development Process

➢ Cleaning Requirements in Equipment Publications

➢ Implement HAP Free Cleaning Materials in the Field

- ▪ Update current Equipment Publications
- ▪ Assure new Equipment Publications do not contain requirements for HAP containing cleaners.

Compliance Requirements in the DLSME

- DLSME requires the use of HAP free materials for cleaning unless a standardization document specifically requires the use of a specific HAP containing Solvent

Equipment Publications Development

➢ Concurrent with production hardware acquisition, equipment publications are procured, either from the OEM, or from an other source.

➢ MIL-STD-40051 is the DOD standard for Publication development.

➢ AR 25-30 defines Equipment Publication:

Publications dealing with the installation, operation, maintenance, training and parts support of Army Materiel

➢ There are several different types of Technical Manuals/documents that are developed for each weapon system:

- Operator Manual-10, Unit Maintenance Manual-20, Direct Support -30, General Support-40.

- AR 750-1 "Army Materiel Maintenance Concepts and Policy" governs the different levels of maintenance

  • Maintenance Allocation Charts are developed for each system that map out what type of repair will be done at what level in the organization.

Why Equipment Publications Must Be Followed ??

➢ Army/DOD Policy

Military Materiel is very costly, if a piece of

equipment is lost due to Maintenance facility error, that facility is responsible for replacing that item.

Cleaning Requirement in Equipment Publications

➢ It appears that many TMs reference the following for cleaning prior to painting:

- ▪ TB 43-0242: spot painting use NSN thinner

- ▪ Specification TT-C-490: No specific cleaning materials called out

- ▪ TB 43-0213: References TB 43-0139

- ▪ TM 43-0139: No specific cleaning materials called out

Implement HAP Free Cleaning Materials in the Field

➢ Update the current equipment publications.

➢ Assure the new equipment publications do not contain requirements for HAP containing cleaners, unless a need can be demonstrated.

Process to Update Current Equipment Publications

➢ Develop the general cleaning specification/document

- Under the SPOTA program (Cleaning sub-category) effort underway to survey the major Depots for technical documents that govern the cleaning prior to painting.

➢ Update the current coating/cleaning TB, TMs, and specifications by referencing the cleaning specification/document for cleaning requirement

- Thus weapons system TM's will be updated by reference

Process to Update current Equipment Publications Cont.

➤ Technical Bulletin to the field to use the cleaning Spec/Document for all general cleaning prior to painting.

➤ Once the DLSME takes effect, survey the installations for any unique/specific cleaning requirements for HAP containing solvents, where HAP Free alternative does not exist.

➤ Future R&D efforts to find alternatives to address specific problems.

Process to Assure New Publications require HAP Free cleaners

➢ Currently all draft manuals go through a review process

- Integrate cleaning requirements review in the process to assure HAP free cleaners are called out, by integrating language into MIL-STD-40051

- In a instance where HAP containing material must be used, and no alternatives for this application exist, then approval must be obtained from an higher authority.

Implementation of Low/No HAP Chemical Agent Resistant Coating (CARC) Topcoat

Strategy

- Demonstration at several installations of the Water Dispersible CARC
  - Using the paint supplier technical support
- Provided Training to the Painters on the use of Water Dispersible (WD) CARC
- Worked with the Commodity managers to gain approval for the use of Water Dispersible CARC on their systems
- Cancellation of MIL-C-46168 by Army Research Laboratory (Commodity Manager)
- Articles in the PS Magazine

Strategy Cont.

- Memo from HQ Installation Management Agency (IMA) to all Army installations notification of the cancellation of MIL-C-46168 (QPL) and information on the available alternatives

- MIL-C-46168 has been replacement by two alternatives: MIL-DTL-53039B, MIL-DTL-64159.

- Technical Briefing as well as Guard Bureau Implementation of WD CARC given at the SPOTA* session on Monday March 20, 2006.

*Sustainable Painting Operations for Total Army (SPOTA)

MIL-DTL-53039B

- One component moisture solvent CARC topcoat

- Two types:

  - Type 1: 3.5 lbs or less of regulated VOCs, and minimal Hazardous Air Pollutants (HAPs) in some formulations (ARL to cancel this in the next spec revision)

  - Type II: 1.5 lbs or less of regulated VOCs, near zero HAPs

  - The current formulations are silica based and thus mar easily, and have less UV durability

  - Thinning with solvent (when needed)

  - ARL working with paint suppliers to incorporate polymeric beads into MIL-DTL-53039B to increase its durability and mar resistance

  - Both type I & II approved for use on all Army materiel.

MIL-DTL-64159

- Water dispersible CARC topcoat, three component system
- Two Types:
    - Type I, silica based
    - Type II, polymeric beads
        - Greatly enhanced durability, more scratch and fade resistant
    - Drying times for the water dispersible CARC can be longer specially in high humidity environments
    - Use deionized water for thinning
    - Although higher in cost, studies have shown that through the life cycle, cost is actually less (e.g., paint less often, reduce solvent usage, consume less during application, create less hazardous waste)
    - Approved for use on PEO CS& CSS systems, as well as AMCOM systems.
    - Approval for use on other Army systems is currently in works